

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An apparatus for integrating two or more automated analyzers, comprising a connector unit that is separate from said automated analyzers, wherein said connector unit comprises:
 - a. a sample rack handler assembly, having a single common sample rack input area for loading sample racks for said two or more automated analyzers, and a sample rack bypass area for passing sample racks to be processed by one of said two or more automated analyzers, wherein the sample racks hold sample tubes containing samples;
 - b. a sample aliquoting assembly, having an aliquot vessel storage tray holding aliquot vessels with and without the samples and a sample pipetter station for withdrawing the samples from the sample tubes and aliquoting the samples into the aliquot vessels for processing by one of said two or more automated analyzers;
 - c. an internal shuttle for shuttling said sample racks between said sample rack input area, said sample rack bypass area, and said sample pipetter station;
 - d. an external shuttle for shuttling said sample racks between said sample rack input area, said sample rack bypass area, and said one of said two or more automated analyzers; and
 - e. means for randomly accessing and transporting said aliquot vessels between said sample pipetter station the aliquot vessel storage tray and said one of said two or more automated analyzers.

2. (Original) The apparatus of claim 1, further comprising a single common control console for said workstation and said two or more automated analyzers.

3. (Original) The apparatus of claim 1, further comprising a bar code reader for ascertaining sample rack identification information.

4. (Original) The apparatus of claim 1, wherein said internal shuttle shuttles said sample racks to be sampled by said one of said two or more automated analyzers from said sample rack input area to said sample rack bypass area.

5. (Original) The apparatus of claim 4, wherein said internal shuttle also shuttles said sample racks to be aliquoted from said sample rack input area to said sample pipetter station.

6. (Original) The apparatus of claim 5, wherein said internal shuttle further shuttles sample racks from said sample pipetter station to said sample rack bypass area after sample aliquoting.

7. (Original) The apparatus of claim 1, further comprising a cap-piercing station for piercing caps of closed sample tubes contained in said sample racks.

8. (Original) The apparatus of claim 7, wherein said internal shuttle additionally shuttles sample racks between said sample rack input area, said sample rack bypass area, said cap-piercing station, and said sample pipetter station.

9. (Original) The apparatus of claim 1, wherein said external shuttle shuttles said sample racks to be processed by said one of said two or more automated analyzers from said sample rack bypass area to said one of said two or more automated analyzers.

10. (Original) The apparatus of claim 9, wherein said external shuttle also shuttles sample racks from said one of said two or more automated analyzers to said sample rack input area of said workstation for reflex testing by said other one

of said two or more automated analyzers.

11. (Original) The apparatus of claim 1, further comprising a sample rack output area for off-loading sample racks after being processed by said one of said two or more automated analyzers.

12. (Original) The apparatus of claim 11, wherein said external shuttle further shuttles said sample racks from said one of said two or more automated analyzers back to said sample rack output area after being processed by said one of said two or more automated analyzers.

13. (Original) The apparatus of claim 1, wherein said transporting means is a pick-and-place mechanism.

14. (Currently amended) An apparatus for integrating two automated analyzers, comprising a connector unit that is separate from said automated analyzers, wherein said connector unit comprises:

- a. a sample rack handler assembly, having a single common sample rack input area for loading sample racks for said two automated analyzers, wherein the sample racks hold sample tubes containing samples;
- b. said sample rack handler assembly also having a sample rack bypass area for passing sample racks to be processed by one of said two automated analyzers;
- c. said sample rack handler assembly, further having a sample rack output area for off-loading sample racks after being processed by said one of said two automated analyzers;
- d. a sample aliquoting assembly, having an aliquot vessel storage tray holding aliquot vessels with and without the samples and a sample pipetter station for withdrawing the samples from the sample tubes and aliquoting the samples into the aliquot vessels for processing

by one of said two automated analyzers;

e. an internal shuttle for shuttling said sample racks to be processed by said one of said two automated analyzers from said sample rack input area to said sample rack bypass area, and also for shuttling said sample racks to be aliquoted from said sample rack input area to said sample pipetter station;

f. an external shuttle for shuttling said sample racks to be processed by said one of said two automated analyzers from said sample rack bypass area to said one of said two automated analyzers, and also for shuttling said sample racks from said one of said two automated analyzers back to said sample rack output area after being processed by said one of said two automated analyzers; and

g. a pick-and-place mechanism for transporting said aliquot vessels containing the samples between said sample pipetter station aliquot vessel storage tray and said one of said two automated analyzers.

15. (Original) The apparatus of claim 14, further comprising a single common control console for said workstation and said two automated analyzers.

16. (Original) The apparatus of claim 14, further comprising a bar code reader for ascertaining sample rack identification information.

17. (Original) The apparatus of claim 14, wherein said internal shuttle also shuttles sample racks from said sample pipetter station to said sample rack bypass area after sample aliquoting.

18. (Original) The apparatus of claim 14, further comprising a cap-piercing station for piercing caps of closed sample tubes contained in said sample racks.

19. (Original) The apparatus of claim 18, wherein said internal shuttle further shuttles sample racks between said sample rack input area, said sample

rack bypass area, said cap-piercing station, and said sample pipetter station.

20. (Original) The apparatus of claim 14, wherein said external shuttle also shuttles sample racks from said one of said two automated analyzers to said sample rack input area of said workstation for reflex testing by said other one of said two automated analyzers.

21. (Currently amended) An apparatus for integrating an automated general chemical analyzer and an automated immunodiagnostic analyzer, comprising a connector unit that is separate from said automated analyzers, wherein said connector unit comprises:

- a. a sample rack handler assembly, having a single common sample rack input area for loading sample racks for said automated general chemical analyzer and said automated immunodiagnostic analyzer, wherein the sample racks hold sample tubes containing samples;
- b. said sample rack handler assembly also having a sample rack bypass area for passing sample racks to be processed by said automated general chemical analyzer;
- c. said sample rack handler assembly, further having a sample rack output area for off-loading sample racks after being processed by said automated general chemical analyzer;
- d. a sample aliquoting assembly, having a cap-piercing station for piercing caps of closed sample tubes contained in said sample racks;
- e. said sample aliquoting assembly also having an aliquot vessel storage tray holding aliquot vessels with and without the samples and a sample pipetter station for withdrawing the samples from the sample tubes and aliquoting the samples into the aliquot vessels for processing by said automated immunodiagnostic analyzer;

f. an internal shuttle for shuttling said sample racks to be processed by said automated general chemical analyzer from said sample rack input area to said sample rack bypass area, and also for shuttling said sample racks to be aliquoted from said sample rack input area to said sample pipetter station;

g. an external shuttle for shuttling said sample racks to be processed by said automated general chemical analyzer from said sample rack bypass area to said automated general chemical analyzer, and also for shuttling said sample racks from said automated general chemical analyzer back to said sample rack output area after being processed by said automated general chemical analyzer; and

h. a pick-and-place mechanism for transporting said aliquot vessels containing the samples between said ~~sample pipetter station~~ aliquot vessel storage tray and said automated immunodiagnostic analyzer.

22. (Original) The apparatus of claim 21, further comprising a single common control console for said workstation, said automated general chemical analyzer, and said automated immunodiagnostic analyzer.

23. (Original) The apparatus of claim 21, further comprising a bar code reader for ascertaining sample rack identification information.

24. (Original) The apparatus of claim 21 wherein said internal shuttle also shuttles sample racks from said sample pipetter station to said sample rack bypass area after sample aliquoting.

25. (Original) The apparatus of claim 21 wherein said internal shuttle further shuttles sample racks between said sample rack input area, said sample rack bypass area, said cap piercing station, and said sample pipetter station.

26. (Original) The apparatus of claim 21, wherein said external shuttle further shuttles sample racks from said automated general chemical analyzer to said sample rack input area of said workstation for reflex testing by said automated immunodiagnostic analyzer.